

Release notes for ENDF/B Development e-081\_T1\_000  
evaluation

**ENDF**  
**B-VII**.dev

October 13, 2016

- fudge-4.0 Warnings:

1. Mislabelled emitted particle  
*Reading ENDF file: ../e-081\_Tl\_000.endf (Error # 0): ZAP messed up*  
  
WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
2. FIXME: Generic fudge unimplemented message  
*reaction label 1: e- + Tl + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data
3. FIXME: Generic fudge unimplemented message  
*reaction label 2: e- + Tl [excitation] / Product: e- (Error # 0): Generic unimp (c)*  
  
WARNING: Checking not yet implemented for energyLoss type data

- fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree  
*reaction label 0: e- + Tl [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
2. Calculated and tabulated thresholds don't agree  
*reaction label 1: e- + Tl + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
3. Calculated and tabulated thresholds don't agree  
*reaction label 2: e- + Tl [excitation] / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!
4. Calculated and tabulated thresholds don't agree  
*reaction label 3: e- + e- + Tl1s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 85798. eV!
5. Calculated and tabulated thresholds don't agree  
*reaction label 4: e- + e- + Tl2s1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 15330. eV!
6. Calculated and tabulated thresholds don't agree  
*reaction label 5: e- + e- + Tl2p1/2 / Cross section: (Error # 0): Threshold mismatch*  
  
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 14746. eV!
7. Calculated and tabulated thresholds don't agree  
*reaction label 6: e- + e- + Tl2p3/2 / Cross section: (Error # 0): Threshold mismatch*

- WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12660. eV!
8. Calculated and tabulated thresholds don't agree  
*reaction label 7:  $e^- + e^- + Tl3s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3678.7 eV!

  9. Calculated and tabulated thresholds don't agree  
*reaction label 8:  $e^- + e^- + Tl3p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3409.7 eV!

  10. Calculated and tabulated thresholds don't agree  
*reaction label 9:  $e^- + e^- + Tl3p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2944.6 eV!

  11. Calculated and tabulated thresholds don't agree  
*reaction label 10:  $e^- + e^- + Tl3d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2493.7 eV!

  12. Calculated and tabulated thresholds don't agree  
*reaction label 11:  $e^- + e^- + Tl3d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2393.9 eV!

  13. Calculated and tabulated thresholds don't agree  
*reaction label 12:  $e^- + e^- + Tl4s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 831.4299999999999 eV!

  14. Calculated and tabulated thresholds don't agree  
*reaction label 13:  $e^- + e^- + Tl4p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 713.97 eV!

  15. Calculated and tabulated thresholds don't agree  
*reaction label 14:  $e^- + e^- + Tl4p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 600.3200000000001 eV!

  16. Calculated and tabulated thresholds don't agree  
*reaction label 15:  $e^- + e^- + Tl4d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 406.35 eV!

  17. Calculated and tabulated thresholds don't agree  
*reaction label 16:  $e^- + e^- + Tl4d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 385.13 eV!

  18. Calculated and tabulated thresholds don't agree  
*reaction label 17:  $e^- + e^- + Tl4f5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 132.95 eV!

19. Calculated and tabulated thresholds don't agree  
*reaction label 18:  $e^- + e^- + Tl4f7/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 128.16 eV!

20. Calculated and tabulated thresholds don't agree  
*reaction label 19:  $e^- + e^- + Tl5s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 139.16 eV!

21. Calculated and tabulated thresholds don't agree  
*reaction label 20:  $e^- + e^- + Tl5p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 99.03 eV!

22. Calculated and tabulated thresholds don't agree  
*reaction label 21:  $e^- + e^- + Tl5p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 77.95999999999999 eV!

23. Calculated and tabulated thresholds don't agree  
*reaction label 22:  $e^- + e^- + Tl5d3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 22.4 eV!

24. Calculated and tabulated thresholds don't agree  
*reaction label 23:  $e^- + e^- + Tl5d5/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 20.01 eV!

25. Calculated and tabulated thresholds don't agree  
*reaction label 24:  $e^- + e^- + Tl6s1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 12.36 eV!

26. Calculated and tabulated thresholds don't agree  
*reaction label 25:  $e^- + e^- + Tl6p1/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.46 eV!

27. Calculated and tabulated thresholds don't agree  
*reaction label 26:  $e^- + e^- + Tl6p3/2$  / Cross section: (Error # 0): Threshold mismatch*

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4.3 eV!

- xsectplotter Warnings:

1. Mislabeled emitted particle  
*Error: ZAP messed up*

stderr while processing crossSection

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0  
 ... [4 more lines]